

Gaia Scientific Data Exploitation

We would like to call on your help in preparing the science exploitation of data that will be collected by the Gaia satellite and by observational programmes supplementing these Gaia data.

The Gaia satellite will provide astrometric, photometric and spectroscopic information about a huge number of stars in our Galaxy. The satellite will be launched in 2012 and will provide a final catalogue in 2020.

Although this may seem a long way away, the astronomical community is already organizing itself, not only to exploit these data but also to collect substantial amounts of supplementary observations. The GREAT (Gaia Research for European Astronomy Training) consortium has been set up to bring together the relevant scientific expertise to address the Gaia scientific issues.

Discussion within the GREAT consortium has clearly revealed the need for spectroscopic data for a considerable number of stars. Opportunities for such large spectroscopic surveys will arise following the recommendations of two Astronet committees (on the future of the European 2-4 m class telescopes and on Wide-Field Spectroscopy), as well as the soon-to-be-expected call for very large proposals on the ESO-VLT.

The Gaia satellite and the supplemental observing programmes reflect a substantial commitment of various funding agencies in stellar astrophysics. We believe the massive star community should make use of this unique opportunity.

Various working groups have been defined in the GREAT consortium, one of which is entitled "Massive Stars". The first task of this working group is to provide a 'White Paper' detailing specific science cases for spectroscopic follow-up of Gaia and the corresponding instrumental requirements. This White Paper will be merged with those of other GREAT working groups and will serve as input to the Astronet committee on Wide-Field Spectroscopy. Another application will be to answer the call for very large proposals on the ESO-VLT.

We are therefore looking for persons who are willing to contribute to writing such a White Paper and get involved in the science exploitation of these data. Please have a look at the websites below and let us know if you can help us (send an email to Ronny Blomme or add your name to the GREAT-Massive stars wiki page).

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More information:

Gaia: <http://sci.esa.int/science-e/www/area/index.cfm?fareaid=26>

GREAT: <http://www.ast.cam.ac.uk/GREAT/index.html>

GREAT - Massive stars: <http://camd08.ast.cam.ac.uk/Greatwiki/WGB5MassiveStars>

Astronet: <http://www.strw.leidenuniv.nl/2to4mtelescopes/>

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